

ENERGY -- (ITALY)

I. Statistical Information -- Primary Energy Consumption

2000	Ktoe (1)	%
Coal	12,800	6,9
Petroleum	91,300	49,4
Natur.Gas	58,100	31,4
Hydro	15,600	8,5
Nuclear	N.A.	N.A.
Renewable	7,000	3,8
TOTAL	184,800	100

(1) one thousand tons of oil equivalent

II. Evaluation of Sector -- Electrical power Systems, Oil and Gas field machinery and Services and Renewable Energy Equipment

- A) On a scale of 1 (low) to 5 (high), evaluate the priority given by the host government to energy development: 4
- B) On a scale of 1 (low) to 5 (high), evaluate country's receptivity to U.S. products & services: 3
- C) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from local domestic suppliers: 3
- D) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from third-country suppliers: 2
- E) On a scale of 1 (severe) to 5 (little), evaluate overall effect of trade barriers on U.S. exports of products and services: 5

III. Narrative Information

Italy is not self sufficient in energy, and, although recent surveys indicate that there is oil in some quantities in the southern regions and offshore, the country still depends on foreign suppliers for about 80% of its needs. These imports mainly consist of hydrocarbons, while some electricity is imported from abroad (France, Switzerland, Austria, Slovenia).

In 2000, Italian Gross Domestic Product (GDP) grew by 2.9% (the highest growth of the last ten years), compared to 1.7 % in 1998, in line with or somewhat higher than the European average. Private consumption grew by some 2.9%, reflecting increased employment. Investments grew sharply to 6.1% thanks to improved financial conditions and fiscal incentives. Industrial production grew by only 3.2%.

Electricity demand felt the effects of this new economic cycle, especially in the first part of 2000, characterized by a considerable increase, which slowed down during the second part of the year. Indeed, in 1998 the overall demand for electricity reached 298.5 billion kWh, an increase of 4.4% over the previous year, compared to 2.3% reported in 1999. Net total consumption reached 279.3 billion kWh. On the supply side, the increase in demand was met through 4.2% more in net production of electricity destined for consumption (254.2 billion kWh) and an increase in the foreign balance of 5.9% (44.3 billion kWh).

As of December 2000, primary energy consumption in Italy increased by 1.1% over the previous year's figure to reach 184,800 Ktoes. Oil represented over 49%, with over 91,000 Ktoes, a slight decrease from the previous year; natural gas over 31.4%, with over 58,000 Ktoes, while hydro and other renewables represented more than 12% of the total with about 23,000 Ktoes, an almost 20% increase over previous year figures. Coal consumption was stable at about 13,000 Ktoes, some 7% of the primary energy consumption.

The Italian electrical sector has been showing clear signs of rapid change in recent years. There has been a substantial increase, for instance, in the number of electricity operators. In 1999, there were 1,451; in 2000, there were 1,471. This can be ascribed to an actual increase in operators with new plants, but it is also due to the reorganization of existing enterprises. In fact, various electricity companies have split their operations, establishing separate production entities, while only a few companies have merged or have incorporated smaller enterprises. The breakdown of the electrical companies as of December 2000 is the following:

Type of company	Number
Self-producers	536
Electricity market operators	935
Of which Distributors	194
Of which traders	27
Total	1,430

The main development in the whole electrical sector was the issuance of the Legislative

Decree n. 79 of March 16, 1999 (Bersani Decree), which established the norms and the timeframe for the liberalization of the energy market as established by the E.U. Directive 96/92. Among other things, the decree states that the National Energy Company's (ENEL) generation capacity in the Italian territory will be reduced from the present 61% to 50%. Moreover, ENEL must sell, by 2003, 15,000 MW of its generation capacity, in order to allow adequate competition on the supply side. The same decree also gave birth to a new figure of electricity operators: the 'traders', and new relationships between operators and end users based on contracts and specific regulations.

Electrical Power Generation and Transmission Equipment (ELP):

2000	Capacity MW	Product. Gwh
Thermal	54,788	220,455
Hydro	20,346	50,900
Nuclear	N.A.	N.A.
Total	75,134	271,355

Italy's economic/political uncertainties have significantly affected the local market for energy related products, equipment and systems. At the same time, electric power demand has continued to increase, causing substantial imports of electricity from neighboring countries (France, Austria, Switzerland and Slovenia). Therefore, energy production investments (including incentives to self-producers), energy source diversification, promotion of energy conservation technologies and utilization of renewable sources will continue to play a significant role in Italy's power generation plans. Energy generation by nuclear fuel has been halted, but there are signs of renewed interest for this form of electric power generation at the R&D level. The potential market for electrical power systems is good, particularly for advanced technology and products of sophisticated design. Good opportunities also exist for solar, geothermal and clean-coal technology. The total market demand for electrical energy related products and systems is estimated at \$ 6,5 billion. The market is expected to have grown by 4% in 2001 and to increase a further 4% in 2002 as the economy recovers from the current economic slowdown.

The use of coal covers about 7% of the Italian energy demand and seems to be slowly recovering following the steady decline of the past few years. This decline was accelerated by the recent, partial implementation of the so called "carbon tax", but there are rumors that it will be lifted in order to change the current mix which characterizes the Italian sources of energy. The principal reasons for low consumption of coal are attributed to the public perception that it is a polluting substance; the absence of policies supporting coal usage; and the lack of incentive measures for the expansion of coal consumption in the industrial and electric sectors. Coal is the second largest U.S. export to Italy resulting in a 45% market share in 1999, followed by the Republic of South Africa's 20% and Australia's 14%.

Oil & Gas Industry and Equipment Market

The market for oil and gas field equipment in Italy is mature and steady with a modest annual growth (less than 2%). The domestic industry is highly competitive (both in price and technical know-how) and export-oriented. Gas turbines and steam turbines are among the most promising prospects for this subsector.

Ente Nazionale Idrocarburi (ENI), the Italian hydrocarbons company, is active in all sectors from exploration and production to distribution. ENI's focus is on its three core businesses of hydrocarbons, chemicals and related engineering and services. Three ENI companies work in the petroleum and natural gas sectors. AGIP is responsible for exploration, production and marketing. AGIP's main subsidiary, Agip Petroli, is responsible for the treatment of crude oil and its distribution. Agip Petroli is number three in Europe in terms of refinery capacity and distribution network. In the natural gas sector, the main operating company is SNAM, the natural gas company which covers supply, transport and distribution.

Renewable Energy Equipment (REQ):

The lack of energy sources exposes the country to considerable risks of both a political and economic nature, not to mention the fact that fossil fuels and nuclear energy are not only non-renewable, but also raise environmental concerns. Consequently, the importance of promoting alternative sources of energy was recently confirmed at the National Conference on Energy and Environment, highlighting an increasingly strong political interest in clean energy as opposed to that produced by fossil fuels and in particular coal. It was affirmed that Italy, one of the world's largest markets with technically advanced industries, needs to invest resources in renewable sources of energy.

Therefore, interest in alternate sources of energy and specifically renewable energy such as geothermal, solar, wind and biomass has become an important issue on the GOI's agenda. There is substantial effort in research and development to expand alternate sources of energy in Italy, especially in the sectors of biomass, solar (both photovoltaic and thermal) and wind energy. All these sectors together only supply a small fraction (just over 3%) of the total energy demand; some growth is expected in the future, at a rate that should not exceed 5% per year in the various subsectors, with the exception of wind energy and its related equipment. This technology, in fact, is being very successful and certainly represent one of the most attractive for practical developments.

Currently, the main limitation to the increased development of renewable sources of energy is the high cost of kWh production that is far from competitive with traditional sources of energy. Hence, renewable energy has found commercial applications only when production cost was irrelevant or, at least, not predominant.

U.S. advanced technology in the above subsectors is well known and appreciated in Italy. Although the total market is still rather small, this may be the "plus" on which expansion of the actual share of the market should be based. Small -and medium-sized enterprises may find good business opportunities, but it is essential that new-to-market

companies use the expertise and services of well-established representatives, who in this specific subsector may be specialized distributors or installers. Local representatives may also prove very useful when dealing with public entities for large procurements and supplies.

IV. Major Procurements or Private Projects on the Horizon (next 18-36 months)

ENEL is nearing completion of an investment plan whose deadline was originally set by 2000, foreseeing an expenditure of approximately 30 million U.S. dollars, 40% of which assigned to Southern Italy. The plan concentrated the spending in two sectors: approximately \$12.5 million for power plant refurbishing and updating and \$12 million for transmission and distribution systems.

While new power plants are not in the plan, expenditures of approximately \$5.7 million are still needed to complete the power plants already planned and/or under construction, but whose completion was blocked. Priorities will be given to the plants off South Brindisi, River Santo (Porto Torres) and Garigliano (Latina). Reportedly, ENEL should implement this investment plan before the end of 2002, otherwise Italy will face a power deficit of about 3,700 MW.

V. Major Trade Events/Fairs

There are no specific trade promotion events devoted exclusively to this industry sector. However, the following biennial Trade Show includes electric power generation equipment and systems.

INTEL

Electrical, Electronics, Factory Automation

Milan Fairgrounds

Next Event: May 20/24 2003

Organizer:

INTEL/ANIE

Via Algardi 2

20148 Milan, Italy

Tel.: 39/2/3264286

Tel.: 39/2/3264284

The trade fair is organized by the National Association of Electrical and Electronics Industries (ANIE). INTEL's broad technological content and comprehensive product range are paralleled by conferences and seminars which reflect current and future trends in the electrical and electronics field. The participation at INTEL of U.S. manufacturers of state-of-the-art power generation equipment and ancillary products such as peak-current power control systems, automatic temperature control and monitoring systems (including related software) etc., is highly recommended and will be strongly supported by CS Italy.

VI. Country's Methods of Procurement

The Italian market place consists of a few large state-controlled customers (ENEL, ENI and National Railways, AGIP, SNAM) and of local governments, municipalities and self-producers. With the privatization of ENEL in August 1991, private self-producers are now allowed to produce more energy for their own use and to continue to sell excess electric power at profitable rates. Furthermore, ENI is also slated for privatization, a process which is being implemented rather slowly because of its labor and political implications. As a result, the spectrum of prospective customers for electrical power systems is likely to widen soon. However a carefully planned and targeted marketing and business strategy is needed. While self-producers are concerned with new technologies to modernize and optimize existing power plants, private industry is interested in energy-saving and cogeneration systems. Therefore appropriate strategies must be used in approaching them, especially by new-to-market small and medium sized enterprises. In order to acquire or maintain close contact with end-users and approach local manufacturers for potential technical cooperation and business joint-ventures, the assistance of a fully competent and skilled local representative/consultant is strongly recommended, especially for government procurement.

In Italy, increased demand and more transparent tendering and bidding procedures is expected, in accordance to EU directives 90/531 and 93/38, implemented by the Legislative Decree No. 158 of March 17, 1995 and published on the Addendum No. 52 of the Italian Official Gazette No. 104 of May 6, 1995.

In January 1992, Italy adopted the EU directives pertaining to the renewable energy industry and has implemented the relevant regulations. There are no trade barriers nor limitations on importation and use of U.S. renewable energy generation equipment. Moreover, the Italian government has favored and favors foreign firms which compete with advanced technologies. Standards are set by the National Standard Board (UNI) in accordance with EU standards.

In general, small equipment and system components are sold through wholesalers, specialized distributors and installers. As to larger equipment for both public and private sectors end-users, contacts should be made with the various distributors or government agencies.

VII. Means of Financing Procurements

Financing and trade practices in this sector adhere to normal business/banking standards. Most of the financing, however, is done through the private sector. As regards the renewable energy sector, government incentives (once up to 80% of the total cost) have been discontinued, but it is possible to use incentives provided by local entities such as Regions or Provinces.

It is important to note that the public sector (which still includes ENEL and ENI, in the process of being privatized, and those municipal utilities still to become private corporations), is somewhat slow in paying for purchases from both foreign and domestic suppliers. This should be considered in both bidding processes and quotes.

VIII. Points of Contact

**The Commercial Service
Embassy of the United States of America
Via Vittorio Veneto, 119/A
00187 Rome, Italy
Contact: Cristiano Sartorio
Tel. 39/06/4674-2252
Fax. 39/06/4674-2113**

**Ministry of Industry
Direzione Generale delle Fonti di Energia e
delle Industrie di Base
Divisione X (Energie Rinnovabili)
Via Molise, 2
00100 - Roma
Contact: Ing. Dario Chello
Tel.: 39/06/462723**

**ENEL - Ente Nazionale per l'Energia Elettrica
Direzione Studi e Ricerche
Vice Direzione Energie Rinnovabili
Via G.B. Martini, 3
00198 ROMA
Contact: Ing. Franco Velona
Tel.: 39/06/85091
Fax: 39/06/85092560
(research and applications)**

**ENI S.p.A. - Ente Nazionale Idrocarburi
Piazzale E. Mattei, 1
00144 Rome (EUR), Italy
Tel.: 39/06/59821
Fax: 39/06/59822141**

ENEA - National Board for New Technologies, Energy

and Environment
Branch for Renewable Energy Sources
CRE CASACCIA
Viale Regina Margherita
00198 ROMA
Contact: Dott. M. Garozzo
Tel.: 39/06/30484089
Fax: 39/06/30484643

Associations

ASSOCARBONI
Associazione Generale Importazione E Commercio Carboni
(The Italian Association of Coal Importers and Traders)
Via T. Campanella, 9/2
16146 Genoa
Contact: Dott. Andrea Clavarino
Tel: 39/010/3621641
Fax: 39/010/3622369

ANIE
Ass. Nazionale Industrie Elettrotecniche ed Elettroniche
(The National Association of Electric and Electronic Industries)
Via Algardi, 2
20148 Milan, Italy
Tel. 39/02/326-41
Fax: 39/02/3264-212

ANIMA
Federazione delle Associazioni Nazionali dell'Industria Meccanica ed Affine
(National Association of Mechanics Industry and Analogous Products)
Via L. Battistotti Sassi, 11B
20133 Milan, Italy
Tel.: 39/02/739-71
Fax: 39/02/739-7316

ASSOMINERARIA
Associazione Mineraria Italiana per l'Industria Mineraria e Petrolifera
(National Association of Mineral and Petroleum Industries)
Via A. Bertoloni, 31
00197 - Rome, Italy
Tel.: 39/06/807-3045
Fax: 39/06/807-3385

UNAPACE
Unione Nazionale Aziende Produttrici e
Consumatrici di Energia Elettrica
(National Association of Energy Self Producers)

Via Ombrone 2/G
00198 Roma
Tel: 39/06/8537281
Fax: 39/06/85372838

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Additional Sources of Information on Sector
(None)

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